METHOD TO CHECK E-MAIL COUNT AT BOOT TIME IN
PERSONAL COMPUTER SYSTEMS

Field of the invention:

5   This invention relates to a method to check email count at boot time in personal computer systems.

Background of the invention:

When a personal computer is switched on, the BIOS, which is a program stored
10 in an erasable programmable read only memory (EPROM) in the hardware of the system, carries out a sequence of operations

- it determines the system configuration,

- it verifies some of the hardware

- it then loads the OS loader from the storage device (eg. Hard disk)

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Thereafter the OS loader takes over and continues with the loading of the operating system including the OS kernel and resident OS subsystems.

Only after all these basic activities have been completed, the system is ready to
20 perform useful tasks. This entire process takes a significant amount of time.

For a user interested in knowing the received email count this implies a significant amount of time spent in waiting for the system to actually perform the required task, from the time he/she switches it on.

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Many users, especially those travelling frequently, need to keep in constant touch with their incoming mail. This requires frequent accessing of the email system. As each time the system has to be turned on, the waiting time to get email information becomes significant.

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The objects and summary of the invention:

The object of this invention is to avoid the above drawback and save time.

5 To achieve the said objective this invention provides in a computing system consisting of a processor, memory storage, input and output devices, a network interface adapter and a basic input/output system (BIOS) for booting, said system being connected to a remote email server, characterized in that said BIOS includes:

10   -   a means to communicate with the network adapter,

    -     a means to access the said remote email server through network during the boot up process using said network adapter,

    -     a means to download the email count for the current user from the remote email server on said network, and

15   -   a means to display the email count for the current user in a defined format on the display of said computing system.

The communication with said remote email server is through TCP/IP protocol.

20 The above system further comprises configuration means for configuring the designated users of the system during a previous system operation.

This invention also provides in a computing system including a network adapter and a basic input/output system (BIOS) connected to a remote email server

25 through a network, a method for accessing email count during the boot up process comprising:

    -     communicating with the network adapter,

    -     accessing the network during the boot up using said network adapter,

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- downloading the email count for the user from the remote email server on said network, and

- displaying the email count for the current user in a defined format on the display of said computing system.

The communication with said remote email server is through TCP/IP protocol.

The above method further comprises configuring the designated users of the system during a previous operation.

This invention also provides a computer program product comprising computer readable program code stored on computer readable storage medium embodied therein for causing a computer to access email count during the boot up process, said computer program code comprising:

- computer readable program code means configured for communicating with the network adapter,

- computer readable program code means configured for accessing said remote email server through network during the boot up process using said network adapter,

- computer readable program code means configured for downloading the email count for the current user from the remote email server on said network, and

- computer readable program code means configured for displaying the email count for the current user in a defined format on the display of said computing system.

The said computer readable program code means is configured for communicating with the network adapter through the TCP/IP protocol.

The said computer readable program code means further comprises computer readable program code means for configuring the designated users of the system during a previous system operation.

5 **Brief description of the drawings:**

The invention will now be described with reference to the accompanying drawings.

Figure 1 shows the entity diagram of the system, according to this invention

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Figure 2 shows the system activity flow chart, according to this invention.

Detailed description of the drawings:

As shown in figure 1, the BIOS (1) stored in the erasable programmable read 15 only memory (EPROM) contains network adapter driver (2), which contains the operating routines for network adapter (3). BIOS (1) also includes TCP/IP module (4) and email header parser (5) and display routine (6).

Referring to figure 2, when the computing system is switched on (7), the BIOS 20 is loaded (8) and starts execution. As a first step, the BIOS verifies the hardware of the system (9). If the verification is successful, the BIOS uses network adapter driver (2) to communicate (10) with the network adapter hardware (3). The BIOS further uses the TCP/IP module (4) to communicate (11) with the remote email system over the network and access the email headers. The 25 received email headers are then parsed (12) by email header parser (5) to extract the email count for each designated user. This information is then displayed (13) on the terminal of the system.

Advantages:

1. This invention saves precious time to the ordinary user, who wants to check e-mail count before deciding/planning actions for a particular day. The user does not have to wait for the application software and OS software to be loaded and initialised.

2. With more and more functionality being introduced into the BIOS software, this invention may pave the way for low cost e-mail count devices which substitute for a personal computer system.

3. In B2C scenarios this invention would be helpful in advance planning.

4. This invention can be extended to other large computer systems and similar benefits derived there from.